

## Surgical Management of Periprosthetic Hip Joint Infections in Latvian State Hospital of Traumatology and Orthopaedics

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**Introduction.** Periprosthetic joint infection (PJI) remains as one of the major complications following total hip arthroplasty despite the development of newer antibiotics and the air-cleaning systems in the operating rooms. It is a challenge for the orthopaedic surgeons with an overall incidence of 1–2%. Several treatment options have been described for the management of PJI, ranging from using biofilm active antibiotics with radical infected tissue debridement to one-stage and two-stage revision operations.

**Aim, Materials and Methods.** The aim of the study is to investigate the surgical tactics and treatment outcomes in patients with PJI. The retrospective study included patients with PJI who were treated in Hospital of Traumatology and Orthopaedics during the period from 2010 to 2015. Patient medical records were analyzed and pain/functional status was determined using Merle d'Aubigne and Postel Method.

**Results.** 72 PJI patients were included in the study. There were 36 male (50.0%) and 36 (50.0%) female patients. The mean age was  $66.3 \pm 9.91$  (41–84) years. Rentgenographic signs suggesting of PJI were present in 70.9% cases. Both component radiographic loosening was seen in 66.6%, acetabular component loosening in 26.4% and femoral component loosening in 7.0% of all cases. Pathogens were isolated from patient hips in 76.4%. Fistula was present in 27.8% of PJI patients. One-stage revision was carried out in 12.5% and two-stage operations were the treatment method of choice in 87.5% of PJI cases. Two-stage exchange was completed in 26.3% of the patients. Temporary prosthesis was remained in 73.7% of the cases. After a patient's subjective assessment 58.3% of the patients had no pain after completed two-stage exchange operation. After temporary prosthesis implantation there was no pain in 21.5% of the patients, in 55.0% there was only minor pain during regular activity.

### Conclusions.

1. The most common surgical treatment method for PJI patients was a two-stage exchange of the prosthesis.
2. After the first exchange operation, patients mostly have no or mild pain and have an acceptable functional status of the hip joint.